United States Department of Agriculture | Forest Service | NA

Reply to: 3410 **Date:** October 12, 1993

Subject: Detection Report

To: Tom Krueger
Hoosier National Forest

Concerning the Detection Report (FSM 3420) and enclosed specimen of September 27, 1993, I identified the insect to be the introduced pine sawfly, Diprion similis (Hartig).

This insect is an unintentional European introduction which was first reported in Connecticut in 1914. Its preferred host is white pine, but commonly feeds on Scotch, jack, red, and Swiss mountain pines, and occasionally attacks shortleaf and Virginia pines.

The insect overwinters as a cocooned larvae. The cocoons are light brown, tough and leathery. Pupation occurs in early spring with emergence of adults in May and early June. Oviposition is in old needles in rows of about ten per needle, deposited in a slit cut into the edge of the needle and are covered with a green frothy substance. The eggs hatch in about 14 days. Young larvae feed gregariously, several to a needle, all headed downward from the twig feeding only on the outer tender parts of the needle. Older larvae feed singly, consuming the entire needle.

The larvae feed until they spin a cocoon in late June through July. There are two generations per year and occasionally a third made up of mostly males. During the second generation, adults emerge in late July, larvae stop feeding and spin cocoons during September. The cocoons of the first generation are spun in the crown foliage, at the base of small branches, in bark crevices on the trunk, on host and nonhost trees, shrubs and grasses. Second and third generation cocoons are spun in the duff and in similiar locations to the first generation.

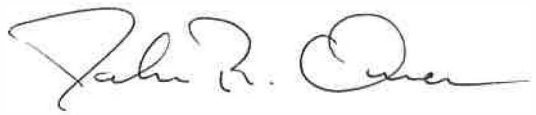
Natural control includes three European parasitic wasps, the larval parasitoid, Exenterus quictorius (Panzer) and two cocoon parasitoids, Dahlbominus fuscipennis (Zetterstedt) and Monodontomerus dentipes (Dalman). Control has also been observed with very low or rapidly fluctuating temperatures or heavy rainfall during the egg and early larval stages.

Typically defoliation is most severe in the upper half of the tree's crown, with complete defoliation in heavy infestations. Repeated heavy or late season defoliation after the winter buds have formed can cause branch and even tree mortality.

This insect is not normally treated, but if the affected trees are of high value or in a scenic or recreation area, there are several insecticides which are effective: acephate, carbaryl, chlorpyrifos, cyfluthrin, fenitrothion, and insecticidal soap. I would recommend insecticidal soap. Follow label directions for application rates and apply as soon as the larvae emerge for best results.

As a result of recent reorganization, Indiana is no longer covered by our field office. Please send any future requests for assistance to our St. Paul Field Office. Their address is: Forest Health Protection, USDA Forest Service, 1992 Folwell Avenue, St. Paul, MN 55108.

If you have any questions concerning this report, please call or DG me at (304) 285-1544 or J.Omer:S24L08A.



JOHN R. OMER
Forestry Technician
Forest Health Protection

cc: HNF, Forest Supervisor
Jim Hanson, SPFO
AO
District Ranger, Tell City RD

JRO/mae

U.S. DEPARTMENT OF AGRICUTURE
Forest Service

Form Approved
OMB No. 040-R-2844

DETECTION REPORT
Forest Insect and Disease Damage
(Reference FSM 3420)

PART A – INSTRUCTIONS: *This report is authorized by PL 95-313. Voluntary responses to the report greatly assist the Forest Service in the detection and prevention of potentially destructive insects and diseases. PRINT. Shaded areas to be completed by receiving Agency. Futher instructions on inside cover.*

1. TYPE OF LANDOWNERSHIP (X Appropriate Box)
☒ Federal ☐ State ☐ Private

2. UNIT (Indicate specific National Forest, National Park etc.): Hoosier National Forest

3. SUBUNIT (Indicate District or other appropriate subunit.): Tell City R.D.

4. LOCATION OF PROPERTY (If known give drainage name, prominent landmark, mileage from known location.): Top saw Lake

State: ____ County: ____

Township	Range	Section	¼ Section
T 05 S	R 02 W	03	SW

5. NAME AND BUSINESS ADDRESS (Include Zip Code.): U.S.D.A. Forest Service

6. PHONE NUMBER (Include Area Code.): (812) 547-7051

7. DATE: 10/22/93

8. ACTION REQUESTED (X Appropriate Box): ☐ None ☒ Identification ☒ Field Evaluation

9. SAMPLE ENCLOSED	10. MAP ENCLOSED	11. ACRES DAMAGED	12. TREES DAMAGED	13. DISTRIBUTION OF DAMAGE
☒ YES ☐ NO	☐ YES ☒ NO	20+ Unknown	White Pine Branches	☐ Scattered ☒ Grouped

14. SPECIES AFFECTED (Indicate species in descending order of damage severity.): White Pine

15. TREE SIZE (X Appropriate Box)	16. PARTS(S) OF TREES DAMAGED (X Appropriate Box)		17. STAND TYPE (X Appro. Box)
☐ 20 Seedling	☐ 30 Root	☒ 35 New Foliage	☐ 40 Nursery
☒ 21 Sapling	☐ 31 Bole	☐ 36 Old Foliage	☒ 41 Plantation
☐ 22 Pole	☒ 32 Branch	☐ 37 Bud	☐ 42 Natural
☒ 23 Sawtimber	☐ 33 Twig	☐ 38 Cone/Seed	☐ 43 Shelterbelt
☐ 24 Overnature	☐ 34 Leader	☐ 39 Wood	☐ 44 Ornamental
			☐ 45 Seed Orchards

18. CASUAL AGENTS OR ASSOCIATED DISTURBANCE (X Appropriate Box)

Insects	Disease	Mechanical		Other
☐ 50 Bark Beetle	☐ 60 Root	☐ 70 Blowdown	☐ 75 Hail	☐ 80 Herbicide
☒ 51 Defoliator	☐ 61 Foliage	☐ 71 Thinning	☐ 76 Snow	☐ 81 Air Pollution
☐ 52 Sapsucking	☐ 62 Decays	☐ 72 Logging	☐ 77 Frost	☐ 82 Salt
☐ 53 Borer	☐ 63 Canker	☐ 73 Drought	☐ 78 Wind	☐ 83 Animal
☐ 54 Other	☐ 64 Other	☐ 74 Flood	☐ 79 Fire	☐ 84 Bird

Indicate casual agent(s) if known: ____

19. REMARKS (Enter any pertinent information to indicate severity of damage or symptoms to help identify casual agent. Use Table I on instruction sheet above as an aid in describing symptoms.)
Seems like Sawfly damage.

introduced pine sawfly

John R. Chua

PART B – TO BE COMPLETED BY RECEIVING AGENCY

1. IDENTIFICATION OF CASUAL AGENT (Reply by Entomologist/Pathologist): Diprion similis

2. INFORMATION REPORTED (X Appropriate Box): ☐ Reared/Cultured ☐ Sample Damaged–Resubmit ☐ Sent out for identification

3. REMARKS: Contact Tom Thake or Tom Krueger
U.S.D.A. Forest
248 15th St Tell City 47586-1902

4. REPORTED BY (Signature): Thomas R. Thake

5. DATE: 10/22/93

6. REPORT NUMBER:

FS 3100-1(1-79)